Bonneville, Viert,
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McGoldrick
A PROFESSIONAL SERVICE CORPORATION
ATTORNEYS AT LAW

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L.R. BONNEVILLE, SR. (1894-1979)
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*LL.M (Taxation)

SENDER'S E-MAIL ADDRESS: jvhandmacher@bvmm.com

June 12, 2002

Hylebos NRDA Settlement Proposal Comments
Attn: Ms. Gail Siani
NOAA Damage Assessment and Restoration Center NW
7600 Sand Point Way NE
Seattle WA 98115-0070

Re: ***Hylebos Waterway Natural Resource Damage Settlement Proposal Plan***

Dear Ms. Siani

Our firm represents Ronald Oline, Judy Johnson, and Hylebos Marina, Inc. As suggested in the letter from Robert Taylor dated April 12, 2002, this letter contains our comments to the Hylebos Waterway Natural Resource Damage Settlement Proposal Report.

Attachment 2 lists Ronald Oline as a party associated with site no. 42, the Aito Services parcel. Ronald Oline has never had any involvement with that property. I could find no reference in the report or any of the supporting documents to indicate that Ronald Oline had any involvement with that property. You should revise attachment 2 to delete any reference to Ronald Oline for site 42.

Hylebos Marina, Inc. is listed as the party associated with site no. 22, named the Hylebos Marina site. The report allocates 2.29 DSAYs to that site. According to table RG-1, 1.396 of those DSAYs are attributed to mercury in footprint no. HG9. However, there is no evidence of mercury being discharged from this site, or that mercury was ever in use at this site. The mercury footprint at HG9 is mostly located in the center of the channel. It appears to be a continuation of HG8, which you have attributed to Elf Atochem. Since Elf Atochem is a confirmed source of mercury, it is likely that the mercury footprint at HG9 originated from the Elf Atochem property, similar to the unresolved footprints at HG4, 5, 11, 12 and 13.

Similarly, there is no evidence in the report or the supporting documents that antimony was discharged from or otherwise used at the Hylebos Marina site. Rather, it is more likely that the small antimony footprint adjacent to the Hylebos Marina property originated from the confirmed sources across the waterway at Elf Atochem and US Gypsum.

Appendix 2 to the allocation report lists Hylebos Marina, Ronald Oline and Judy Johnson as parties associated with site no. 23, the Don Oline Autofluff site. Hylebos Marina, Inc. has

never had any involvement as an owner or operator of the Don Oline Autofluff site. There is no evidence in the report or supporting documents to connect Hylebos Marina, Inc. to that site. Attachment 2 should be modified to delete Hylebos Marina from that site.

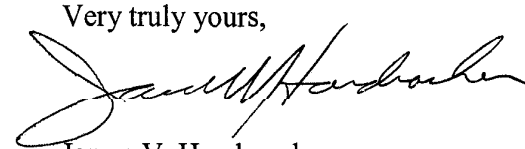
Ronald Oline and Judy Johnson became the owners of the Oline Autofluff site when the property was deeded to them by their parents, Don and Alba Oline, in 1975, when they were just children. A copy of the quitclaim deed is enclosed. The autofluff, or automobile shredder residue (ASR), had already been placed on the site as fill material at the time of that quitclaim deed. Nevertheless, Ron Oline and Judy Johnson cooperated with the Department of Ecology and entered into a consent decree to remove the ASR from the property. That cleanup was performed in the fall of 1997. Sampling by their consultant and Russ McMillan of the Department of Ecology confirmed that the consent decree objectives for the site had been met. A copy of Mr. McMillan's report of December 20, 2000 is enclosed.

The report allocates 24.916 DSAYs to the Oline Autofluff site. Nearly half of that amount, 10.881 DSAYs, were attributed to BBPH. Despite all of the sampling that was done on the Oline Autofluff site, there is no evidence in the report or the supporting documents to indicate that BBPH originated from this site, or was ever present at this site. The same is true for DMPH and DOPH. Even if there was evidence linking these three chemicals to the Oline Autofluff site, the number of DSAYs attributed to those and other chemicals at this site appears disproportionate. The ASR at the Oline Autofluff site originated from General Metals. Thus there are similarities in the DSAYs for substances of concern at the Oline Autofluff site and the General Metals site, with the Oline site generally being 10 – 20% of the General Metals site. However, the DSAYs for cadmium at the Oline site are three times the DSAYs at the General Metals site. The DSAYs for BBPH at the Oline Autofluff site are nearly the same as at the General Metals site, despite the far lower quantities of ASR at the Oline site. Further, the Oline Autofluff site includes 1.217 DSAYs for DMPH, while the General Metals site has no DSAYs for that substance. There is no evidence in the report or the supporting documents to support that larger DSAY allocation for the Oline site in comparison to the General Metals site.

The proposed allocation of interim NRDA costs is discussed in Appendix J. Some of the assumptions in that proposed allocation are not justified. The baywide costs are allocated to the Hylebos parties by applying the percentage of total site-specific costs incurred at the Hylebos. Since the trustees have focused most of their attention first to the Hylebos instead of the Foss, it would be expected that more site-specific costs would be incurred at the Hylebos. That does not mean that the baywide costs should be similarly skewed. It is impossible to test this analysis with the limited information contained in Appendix J. For example, there is no detail provided for the baywide costs that would allow an analysis of the appropriate allocation to different waterways. But if baywide costs are allocated equally to the four unresolved waterways, the costs allocated to the Hylebos would drop by approximately $1,500,000. Further, though a portion of the city's NRD settlement was applied to the Hylebos-specific costs, no portion of the funds from the city's settlement was applied to the baywide costs.

The comments provided above are primarily directed to the allocation aspects of the settlement report, because there was not sufficient time to analyze and comment on the other aspects of the report. The absence of additional comments regarding other aspects of the settlement report should not be construed as acknowledgment or agreement with any aspect of the report.

Very truly yours,



James V. Handmacher

JVH:jvh
cc: Client
G:\LAWTYPE\EN\JH\LETTERS\OLINE-NRDA.DOC

2602904 111C

Quit Claim Deed

2602904

RECORDED

'75 MAY 8 AM 9:54

RICHARD A. GRECO AUDITOR
PIERCE COUNTY WASH.
DEPUTY

M. Gleason

Pioneer National Title Insurance Company
WASHINGTON TITLE DIVISION

Mail to Donald E. Oline
3216 Mann View Dr.
Tacoma, Wash. 98422

Send Tax Statement to 1-2

COMMONWEALTH TITLE INSURANCE CO.

1120 PACIFIC AVE.
TACOMA, WASHINGTON 98402

FORM L56 R

Quit Claim Deed

THE GRANTOR Donald E; and Alba M. Oline (husband and wife)

for and in consideration of Ten dollars and other valuable considerations.

convey and quit claim to Judy d. Johnson, Bradly D. Oline and Ronald S. Oline an undivided equal one third interests each in the following described real estate, situated in the County of Pierce

State of Washington including any interest therein which grantor may hereafter acquire:

SEE LEGAL DISCRIPTIONS ATTACHED

EXCISE TAX PAID $ None NS
REC. NO. 39455 DATE 5-8-75
HAROLD R. LUND Pierce Co. Treas.
BY Lynn Compton DEPUTY

Dated this 14 th. day of March 1975

Donald E. Oline (SEAL)

Alba M. Oline (SEAL)

GEORGE K. KUCAI NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES SEPT. 13, 1976

STATE OF WASHINGTON, } ss.
County of PIERCE

On this day personally appeared before me

to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that signed the same as free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this 14TH day of MARCH 1975

Notary Public in and for the State of Washington, residing at TACOMA

2602904

2468015

APPENDIX I

TO

REAL ESTATE CONTRACT

PARCEL A:
That portion of Government Lot 2, Section 36, Township 21 North, Range 3 East, W.M.; that portion of the southwest quarter of the southwest quarter of the southwest quarter of Section 25, Township 21 North, Range 3 East, W.M., and that portion of Government Lot 11, Section 26, Township 21 North, Range 3 East, W.M., lying northeasterly of Marine View Drive, and southwesterly of Julia Gulch County Road.
EXCEPT that portion conveyed to the Port of Tacoma by deed recorded under Auditor's Fee No. 1941912, described as follows:
Commencing at the northeast corner of the south half of the northeast quarter of the northwest quarter of Section 36, Township 21 North, Range 3 East of the W.M.; thence north 88°14'00" west along the north line of said subdivision a distance of 854.13 feet to the true point of beginning of this description; thence continuing along said north line projected into the northwest quarter of the northwest quarter of said Section 36 a distance of 484.07 feet to intersect the northeasterly right of way line of Marine View Drive; thence north 48°09'57" east along the northeasterly right of way line of Marine View Drive a distance of 500.00 feet; thence south 67°51'47" east 924.50 feet to the true point of beginning; and
EXCEPT that portion thereof condemned by the City of Tacoma in Pierce County Superior Court Cause No. 63162.

PARCEL B:
Commencing at the southeast corner of Government Lot 11 in the southeast quarter of Section 26, Township 21 North, Range 3 East of the W.M.; thence north 00°38'53" east along the east line of said Section for a distance of 400 feet; thence south 45°22'22" west to the southwesterly line of Marine View Drive as condemned under Pierce County Superior Court Cause No. 67546 and the true point of beginning; thence north 48°18'36" west along the southwesterly line of Marine View Drive 295 feet, more or less, to the most easterly corner of tract of land contracted to be conveyed to Donald E. Oline and Alba M. Oline, his wife, by instrument recorded September 7, 1971 under Auditor's Fee No. 2409540; thence south 42°48'45" west a distance of 430.08 feet to the northeasterly boundary line of Hylebos Waterway; thence south 48°18'36" east along the northerly line of Hylebos waterway a distance of 1307.14 feet to the south line of Government Lot 2 in Section 36, Township 21 North, Range 3 East, W.M.; thence east along the south line of Government Lot 2 a distance of 620 feet, more or less, to the southwesterly line of Marine View Drive; thence northerly along the southwesterly line of Marine View Drive to the point of beginning.

Seller shall convey Parcels A and B to Purchaser, SUBJECT TO:

1. Lease between Foss Launch & Tug Co. (Seller's predecessor in interest), as Lessor, and Hylebos Boat Haven, Inc. (predecessor in interest to Nordland Boat Co., the present Lessee), as Lessee, dated September 1, 1963.

2. Special exceptions appearing in title insurance policy to be issued in favor of Purchaser by Commonwealth Title Insurance Company, Tacoma, Washington, under No. 256 442-A.

3. All easements, covenants, restrictions and reservations which exist of record on September 30, 1972.

8:30 AM
OCT 6 1972
Filed for record at request of COMMONWEALTH TITLE CO.

Confirmation Sampling and Analysis Report for Intertidal Sediments, Don Oline Autofluff Site, Hylebos Waterway, Commencement Bay.

by
Russ McMillan

December 20. 2000

Summary: Three intertidal sediment samples were collected to confirm that cleanup levels had been achieved at the Don Oline Autofluff facility. Sampling occurred on July 21, 2000 and samples were submitted to the Manchester Lab following protocols for collection, transfer and analysis as described in Quality Assurance Project Plan, Confirmation Sampling for Intertidal Sediments, Don Oline Autofluff Site, Hylebos Waterway, Commencement Bay, dated May, 2000.

Only one of the targeted analytes was detected in the sediment samples and quantitation limits were at or below regulatory criteria for all analytes. Re-analysis for N-Nitrosodiphenylamine was required at 2 of 3 stations since quantitation limits in the first round of analyses were above criteria, although the analyte was not detected. The second round of analyses achieved the necessary quantitation limits, confirming that N-Nitrosodiphenylamine was not present at or above the regulatory criteria.

Based on these data the cleanup levels have been achieved at the Don Oline Autofluff site and actions to remove the site from Ecology's site list will be taken.

Introduction: During the fall of 1997 a cleanup of auto shredder residue was performed at the Don Oline Autofluff facility located at 2120 Marine View Drive, Tacoma, Washington. Ecology received the confirmational sampling report, Final Report, Don Oline Autofluff Site, 2120 Marine View Drive, Tacoma, WA dated June 11, 1998. Based upon this information, Ecology determined that upland soils within the foot print of the uplands removal action had been remediated and were in compliance with the Consent Decree, Exhibit B, Cleanup Action Plan requirements for upland soils (i.e., Method A – Industrial Soil Cleanup Levels). Ecology also determined that sediment characterizations did not achieve low enough detection limits for some analytes at the stations listed in Table 1 to confirm compliance with the Consent Decree, Exhibit B. Cleanup Action Plan requirements for sediments.

Table 1. Intertidal Sediment Stations, Sampled in 1997, Where Compliance for Certain Analytes was not Confirmed

Analyte	Stations where Compliance was not Confirmed
N-Nitrosodiphenylamine	All intertidal stations
Bis-(2Ethylhexyl)phthalate	SED-14, SED-15, SS-21 and SS-22
Di-N-Butylphthalate	SED-14 and SED-15
Dimethylphthalate	SED-14, SED-15, and SED-36.

In order to confirm whether Consent Decree objectives for this cleanup site had been met, additional sampling was performed by the Department of Ecology.

Methods and Results: Three stations were determined to be appropriate for confirmational purposes. Sampling and analysis of sediments was conducted as follows:

- The original station locations were determined as accurately as possible, although a concrete slab in the vicinity of station SED 15 required moving laterally to access the sediment excavation surface.
- Sediment stations SED–14, SED-15 and SED-36 were reoccupied and sediment samples collected that were representative of the surface sediments originally exposed by the remedial excavation (prior to placement of the fishmix gravels over the excavated site).
- Analyses were conducted for N-Nitrosodiphenylamine and Dimethylphthalate for all three stations, and analysis for Bis-(2Ethylhexyl)phthalate and Di-N-Butylphthalate were conducted for stations SED-14 & SED-15.

Sediment station locations are shown in Figure 1.

Sampling occurred on July 21, 2000 and the samples were delivered to the Manchester Lab per chain-of-custody requirements. The samples were prepared on July 31, 2000, and analyzed on August 8, 2000. Due to hydrocarbon interference at stations SED-14 and SED-15, dilution of the extract was performed, which bumped up the detection limit for N-Nitrosodiphenylamine for these two stations. Reanalysis of the sample extract for these stations was undertaken on December 13, 2000 to achieve lower detection limits. A conservative quantitation limit of 28 ug/Kg was achieved (this equals the regulatory criteria) and instrument calibration confirmed that sensitivity was sufficient to detect N-Nitrosodiphenylamine at half the reported quantitation limit if it were present.

Table 2. Sediment Sample Results

Sample		NNDP	DMP	BEHP	DNBP	Station Location	
	Criteria (ppb dry)	28	160	1300	1400	Dist. perpendicular from N'rly Blkhd	S'rly Blkhd
SED-14		28 U[1]	55 U	216 U	55 U	65 ft	10 ft
SED-15		28 U[1]	57 U	115 U	57 U	42.5 ft	10 ft
SED-36		7.6 U	2 J	NR	NR	15 ft	64 ft

NNDP	N-Nitrosodiphenylamine
DMP	Dimethylphthalate
BEHP	Bis(2-Ethylhexyl) Phthalate
DNBP	Di-N-Butylphthalate
U	Not Detected at or above reported value
J	Analyte was positively identified, reported value is an estimate
NR	Not required for confirmation
1	Reported value from 2nd round of analyses, Dec, 2000

Conclusions: The data were determined to be of adequate quality to confirm that cleanup objectives for the intertidal area had been achieved. Only one of the targeted analytes, Dimethylphthalate, was detected on site, at one station and below the regulatory criteria. The quantitation limits for the other undetected analytes were at or below the regulatory criteria.

Based on these data, Ecology has determined that compliance with the requirements of the Consent Decree and Cleanup Action Plan has been fulfilled for the sediments area. Prior confirmation sampling of the uplands areas confirmed compliance for the uplands area except for recording a restrictive covenant since industrial cleanup standards were used. Ecology will follow this report with a letter confirming this determination.

Attachment 1. Manchester Environmental Laboratory, Case Narrative, August 31, 2000

Attachment 2. Manchester Environmental Laboratory, Case Narrative, December, 19, 2000

Attachment 3. Analysis request and Chain of Custody Record

Attachment 4. Figure 2. Limit of Intertidal Remedial Excavation and Performance Sampling Locations. (From: Final Report, Don Oline Autofluff Site, 2120 Marine View Drive, Tacoma, WA and Appendices, dated June 11, 1998, prepared by Thomas Morin, Environmental Partners, Inc.)

Attachment 5. Field Notes from sampling effort July 21, 2000.

Attachment 1

RECEIVED
SEP 0 6 2000
Washington State
Department of Ecology

MANCHESTER ENVIRONMENTAL LABORATORY
7411 Beach Drive E, Port Orchard Washington 98366

CASE NARRATIVE

August 31, 2000

Subject: Don Oline Autofluff

Samples: 00-308000 to -308002

Case No. 3570-00

Officer: Russ McMillan

By: Dickey D. Huntamer
Organics Analysis Unit

SEMIVOLATILES ORGANICS

ANALYTICAL METHODS:

The semivolatile soil samples were Soxhlet extracted using acetone and analyzed following the Manchester modification of the EPA SW 846 8270 with capillary GC/MS analysis of the sample extracts. Normal QA/QC samples and procedures were performed with the samples. A NIST Certified Reference Material (CRM) was also analyzed with the sample batch.

HOLDING TIMES:

All analysis-holding times were within the recommended limits.

BLANKS:

Low levels of some target compounds were detected in the laboratory blanks. Compounds that were found in the sample and in the blank were considered native to the sample if the area counts in the sample are greater than or equal to five times the area counts in the associated method blank.

SURROGATES:

The surrogate compound recoveries were within acceptable limits.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:

Matrix spike recoveries were acceptable for all compounds except for hexachloroethane, 3-nitroaniline and 4-nitroaniline. Results for these analytes were "J" qualified. Hexachlorocyclopentadiene was not recovered in the matrix spikes and the results are flagged as rejected, "REJ" in the data reports.

ANALYTICAL COMMENTS:

No significant problems were encountered in the analysis. The data is acceptable as qualified.

Due to hydrocarbon interferences samples 308001 and 308002 were analyzed at a 1:5 dilution and consequently the corresponding quantitation level is five times higher.

The results of the CRM analysis are summarized in Table 1.

DATA QUALIFIER CODES:

U	-	The analyte was not detected at or above the reported value.
J	-	The analyte was positively identified. The associated numerical value is an estimate.
UJ	-	The analyte was not detected at or above the reported estimated result.
REJ	-	The data are unusable for all purposes.
NAF	-	Not analyzed for.
N	-	For organic analytes there is evidence the analyte is present in this sample.
NJ	-	There is evidence that the analyte is present. The associated numerical result is an estimate.
E	-	This qualifier is used when the concentration of the associated value exceeds the known calibration range.
Bold	-	The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet.)

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308000 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SS-36 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	15	U	**Acenaphthene**	**1.7**	**J**
Pyridine	15	U	2,4-Dinitrophenol	152	U
Aniline	7.6	U	4-Nitrophenol	76	U
Phenol	19	U	**Dibenzofuran**	**3.9**	**J**
Bis(2-Chloroethyl)Ether	7.6	U	2,4-Dinitrotoluene	15	U
2-Chlorophenol	7.6	U	Diethylphthalate	29	U
1,3-Dichlorobenzene	7.6	U	**Fluorene**	**9.5**	
1,4-Dichlorobenzene	7.6	U	4-Chlorophenyl-Phenylether	7.6	U
1,2-Dichlorobenzene	7.6	U	4-Nitroaniline	30	UJ
Benzyl Alcohol	7.6	U	4,6-Dinitro-2-Methylphenol	76	U
2-Methylphenol	7.6	U	N-Nitrosodiphenylamine	7.6	U
2,2'-Oxybis[1-chloropropane]	7.6	U	1,2-Diphenylhydrazine	7.6	U
N-Nitroso-Di-N-Propylamine	7.6	U	4-Bromophenyl-Phenylether	7.6	U
4-Methylphenol	**13**		Hexachlorobenzene	7.6	U
Hexachloroethane	7.6	UJ	**Pentachlorophenol**	**32**	**J**
Nitrobenzene	7.6	U	**Phenanthrene**	**29**	
Isophorone	7.6	U	Anthracene	7.6	U
2-Nitrophenol	15	U	Caffeine	7.6	U
2,4-Dimethylphenol	7.6	U	**Carbazole**	**8.9**	
Bis(2-Chloroethoxy)Methane	7.6	U	Di-N-Butylphthalate	35	U
Benzoic Acid	194	U	**Fluoranthene**	**33**	
2,4-Dichlorophenol	7.6	U	Benzidine	15	U
1,2,4-Trichlorobenzene	7.6	U	**Pyrene**	**30**	
Naphthalene	**12**		**Retene**	**12**	
4-Chloroaniline	7.6	U	Butylbenzylphthalate	7.6	U
Hexachlorobutadiene	7.6	U	**Benzo(a)anthracene**	**9.9**	
4-Chloro-3-Methylphenol	7.6	U	3,3'-Dichlorobenzidine	15	U
2-Methylnaphthalene	**4.9**	**J**	**Chrysene**	**24**	
1-Methylnaphthalene	**3**	**J**	Bis(2-Ethylhexyl) Phthalate	35	U
Hexachlorocyclopentadiene		REJ	Di-N-Octyl Phthalate	7.6	U
2,4,6-Trichlorophenol	7.6	U	**Benzo(b)fluoranthene**	**25**	
2,4,5-Trichlorophenol	7.6	U	**Benzo(k)fluoranthene**	**13**	
2-Chloronaphthalene	7.6	U	**Benzo(a)pyrene**	**18**	
2-Nitroaniline	7.6	U	3B-Coprostanol	30	U
Dimethylphthalate	**2**	**J**	**Indeno(1,2,3-cd)pyrene**	**20**	
2,6-Dinitrotoluene	7.6	U	Dibenzo(a,h)anthracene	7.6	U
Acenaphthylene	**3.6**	**J**	**Benzo(ghi)perylene**	**16**	
3-Nitroaniline	15	UJ			

Authorized By: _____ Release Date: 8/31/00 Page: 1

Req'd for Confirmation at this station
Analytes evaluated

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308000 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SS-36 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	86	%
D5-Phenol	96	%
D4-2-Chlorophenol	88	%
1,2-Dichlorobenzene-D4	49	%
D5-Nitrobenzene	77	%
2-Fluorobiphenyl	88	%
Pyrene-D10	105	%
Terphenyl-D14	112	%

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308000 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SS-36 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Tentatively Identified Compounds

CAS Number	Analyte Description	Result	Qualifier
3240093	*5-Hexen-2-one, 5-methyl-*	277	NJ
1515760	*1,3-Butadien-1-ol, acetate*	536	NJ
2242708	*Ethanethioic acid, S,S'-[thiobis(methylene)] ester*	189	NJ
10544500	*Sulfur, mol. (S8)*	162	NJ
629969	*1-Eicosanol*	52	NJ
638675	*Tricosane*	255	NJ
77899106	*(Z)14-Tricosenyl formate*	147	NJ
544854	*Dotriacontane*	177	NJ
1058613	*Stigmast-4-en-3-one*	212	NJ

Authorized By: _____ Release Date: 8/31/00

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308001 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-14 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	110	U	**Acenaphthene**	**507**	
Pyridine	110	U	2,4-Dinitrophenol	1100	U
Aniline	55	U	4-Nitrophenol	552	U
Phenol	115	U	**Dibenzofuran**	**293**	
Bis(2-Chloroethyl)Ether	55	U	2,4-Dinitrotoluene	110	U
2-Chlorophenol	55	U	Diethylphthalate	55	U
1,3-Dichlorobenzene	55	U	**Fluorene**	**350**	
1,4-Dichlorobenzene	55	U	4-Chlorophenyl-Phenylether	55	U
1,2-Dichlorobenzene	55	U	4-Nitroaniline	221	UJ
Benzyl Alcohol	55	U	4,6-Dinitro-2-Methylphenol	552	U
2-Methylphenol	55	U	■ N-Nitrosodiphenylamine	55	U
2,2'-Oxybis[1-chloropropane]	55	U	1,2-Diphenylhydrazine	55	U
N-Nitroso-Di-N-Propylamine	55	U	4-Bromophenyl-Phenylether	55	U
4-Methylphenol	**100**		Hexachlorobenzene	55	U
Hexachloroethane	55	UJ	Pentachlorophenol	552	U
Nitrobenzene	55	U	**Phenanthrene**	**851**	
Isophorone	55	U	**Anthracene**	**341**	
2-Nitrophenol	110	U	Caffeine	55	U
2,4-Dimethylphenol	55	U	**Carbazole**	**114**	
Bis(2-Chloroethoxy)Methane	55	U	■ Di-N-Butylphthalate	55	U
Benzoic Acid	**1470**		**Fluoranthene**	**1770**	
2,4-Dichlorophenol	55	U	Benzidine	110	U
1,2,4-Trichlorobenzene	55	U	**Pyrene**	**1410**	
Naphthalene	764	U	**Retene**	**988**	
4-Chloroaniline	55	U	**Butylbenzylphthalate**	**109**	
Hexachlorobutadiene	55	U	**Benzo(a)anthracene**	**334**	
4-Chloro-3-Methylphenol	55	U	3,3'-Dichlorobenzidine	110	U
2-Methylnaphthalene	**175**		**Chrysene**	**331**	
1-Methylnaphthalene	**97**		■ Bis(2-Ethylhexyl) Phthalate	216	U
Hexachlorocyclopentadiene		REJ	Di-N-Octyl Phthalate	55	U
2,4,6-Trichlorophenol	55	U	**Benzo(b)fluoranthene**	**220**	
2,4,5-Trichlorophenol	55	U	**Benzo(k)fluoranthene**	**181**	
2-Chloronaphthalene	55	U	**Benzo(a)pyrene**	**190**	
2-Nitroaniline	55	U	3B-Coprostanol	221	U
Dimethylphthalate	55	U	**Indeno(1,2,3-cd)pyrene**	**146**	
2,6-Dinitrotoluene	55	U	Dibenzo(a,h)anthracene	55	U
Acenaphthylene	**69**		**Benzo(ghi)perylene**	**133**	
3-Nitroaniline	110	UJ			

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■ Analytes req'd for Confirmation at this Station

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308001 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-14 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	86	%
D5-Phenol	93	%
D4-2-Chlorophenol	81	%
1,2-Dichlorobenzene-D4	50	%
D5-Nitrobenzene	74	%
2-Fluorobiphenyl	90	%
Pyrene-D10	108	%
Terphenyl-D14	114	%

Authorized By: _____ Release Date: 8/31/00

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308001 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-14 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Tentatively Identified Compounds

CAS Number	Analyte Description	Result	Qualifier
1576870	*2-Pentenal, (E)-*	764	NJ
141797	*3-Penten-2-one, 4-methyl-*	4590	NJ
123422	*2-Pentanone, 4-hydroxy-4-methyl-*	122000	NJ
627087	*Propane, 1-(1-methylethoxy)-*	4050	NJ
5166530	*3-Hexen-2-one, 5-methyl-*	1220	NJ
1123097	*2-Cyclohexen-1-one, 3,5-dimethyl-*	1870	NJ
1921706	*Pentadecane, 2,6,10,14-tetramethyl-*	522	NJ
102608537	*3,7,11,15-Tetramethyl-2-hexadecen-1-ol*	520	NJ
10544500	*Sulfur, mol. (S8)*	866	NJ
56554871	*16-Octadecenal*	194	NJ
593453	*Octadecane*	213	NJ
2765119	*Pentadecanal-*	241	NJ
630046	*Hentriacontane*	374	NJ
83476	*.gamma.-Sitosterol*	1420	NJ

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	113	U	**Acenaphthene**	**95**	
Pyridine	113	U	2,4-Dinitrophenol	1130	U
Aniline	57	U	4-Nitrophenol	566	U
Phenol	57	U	**Dibenzofuran**	**154**	
Bis(2-Chloroethyl)Ether	57	U	2,4-Dinitrotoluene	113	U
2-Chlorophenol	57	U	***Diethylphthalate***	**50**	**J**
1,3-Dichlorobenzene	57	U	**Fluorene**	**206**	
1,4-Dichlorobenzene	57	U	4-Chlorophenyl-Phenylether	57	U
1,2-Dichlorobenzene	57	U	4-Nitroaniline	226	UJ
Benzyl Alcohol	57	U	4,6-Dinitro-2-Methylphenol	566	U
2-Methylphenol	57	U	N-Nitrosodiphenylamine	57	U
2,2'-Oxybis[1-chloropropane]	57	U	1,2-Diphenylhydrazine	57	U
N-Nitroso-Di-N-Propylamine	57	U	4-Bromophenyl-Phenylether	57	U
4-Methylphenol	**262**		Hexachlorobenzene	57	U
Hexachloroethane	57	UJ	Pentachlorophenol	566	U
Nitrobenzene	57	U	**Phenanthrene**	**486**	
Isophorone	57	U	**Anthracene**	**124**	
2-Nitrophenol	113	U	Caffeine	57	U
2,4-Dimethylphenol	57	U	**Carbazole**	**69**	
Bis(2-Chloroethoxy)Methane	57	U	Di-N-Butylphthalate	57	U
Benzoic Acid	**1620**		**Fluoranthene**	**562**	
2,4-Dichlorophenol	57	U	Benzidine	113	U
1,2,4-Trichlorobenzene	57	U	**Pyrene**	**489**	
Naphthalene	**365**		**Retene**	**32600**	**E**
4-Chloroaniline	57	U	Butylbenzylphthalate	57	U
Hexachlorobutadiene	57	U	**Benzo(a)anthracene**	**132**	
4-Chloro-3-Methylphenol	57	U	3,3'-Dichlorobenzidine	113	U
2-Methylnaphthalene	**200**		**Chrysene**	**176**	
1-Methylnaphthalene	**141**		Bis(2-Ethylhexyl) Phthalate	115	U
Hexachlorocyclopentadiene		REJ	Di-N-Octyl Phthalate	57	U
2,4,6-Trichlorophenol	57	U	**Benzo(b)fluoranthene**	**185**	
2,4,5-Trichlorophenol	57	U	**Benzo(k)fluoranthene**	**73**	
2-Chloronaphthalene	57	U	**Benzo(a)pyrene**	**178**	
2-Nitroaniline	57	U	3B-Coprostanol	226	U
Dimethylphthalate	57	U	**Indeno(1,2,3-cd)pyrene**	**162**	
2,6-Dinitrotoluene	57	U	Dibenzo(a,h)anthracene	57	U
Acenaphthylene	**75**		**Benzo(ghi)perylene**	**157**	
3-Nitroaniline	113	UJ			

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Reqd for Confirm.

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	86	%
D5-Phenol	89	%
D4-2-Chlorophenol	86	%
1,2-Dichlorobenzene-D4	50	%
D5-Nitrobenzene	81	%
2-Fluorobiphenyl	88	%
Pyrene-D10	101	%
Terphenyl-D14	109	%

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Manchester Environmental Laboratory

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Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Tentatively Identified Compounds

CAS Number	Analyte Description	Result	Qualifier
3102338	*3-Penten-2-one, (E)-*	5710	NJ
141797	*3-Penten-2-one, 4-methyl-*	2800	NJ
3031752	*Hydroperoxide, 1-methylethyl*	9880	NJ
123422	*2-Pentanone, 4-hydroxy-4-methyl-*	118000	NJ
627087	*Propane, 1-(1-methylethoxy)-*	3010	NJ
4436753	*3-Hexene-2,5-dione*	1530	NJ
1123097	*2-Cyclohexen-1-one, 3,5-dimethyl-*	1150	NJ
629787	*Heptadecane*	640	NJ
1921706	*Pentadecane, 2,6,10,14-tetramethyl-*	854	NJ
544638	*Tetradecanoic acid*	504	NJ
38754948	*s-Indacen-1(2H)-one, 3,5,6,7-tetrahydro-3,3,4,5,5,8*	1770	NJ
1576676	*Phenanthrene, 3,6-dimethyl-*	694	NJ
41114005	*Pentadecanoic acid, ethyl ester*	316	NJ
111615	*Octadecanoic acid, ethyl ester*	376	NJ
83476	*.gamma.-Sitosterol*	2890	NJ

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Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 (Matrix Spike - LMX1) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** % Recovery

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	63		Acenaphthene	98	
Pyridine		NAF	2,4-Dinitrophenol	128	
Aniline	27		4-Nitrophenol	104	
Phenol	98		Dibenzofuran	89	
Bis(2-Chloroethyl)Ether	69		2,4-Dinitrotoluene	93	
2-Chlorophenol	85		Diethylphthalate	91	
1,3-Dichlorobenzene	41		Fluorene	90	
1,4-Dichlorobenzene	42		4-Chlorophenyl-Phenylether	91	
1,2-Dichlorobenzene	47		4-Nitroaniline	38	
Benzyl Alcohol	83		4,6-Dinitro-2-Methylphenol	95	
2-Methylphenol	98		N-Nitrosodiphenylamine	104	
2,2'-Oxybis[1-chloropropane]	69		1,2-Diphenylhydrazine	92	
N-Nitroso-Di-N-Propylamine	83		4-Bromophenyl-Phenylether	106	
4-Methylphenol	101		Hexachlorobenzene	90	
Hexachloroethane	8		Pentachlorophenol	106	
Nitrobenzene	75		Phenanthrene	103	
Isophorone	91		Anthracene	97	
2-Nitrophenol	75		Caffeine		NAF
2,4-Dimethylphenol	100		Carbazole	93	
Bis(2-Chloroethoxy)Methane	83		Di-N-Butylphthalate	98	
Benzoic Acid	117		Fluoranthene	96	
2,4-Dichlorophenol	93		Benzidine		NAF
1,2,4-Trichlorobenzene	63		Pyrene	104	
Naphthalene	75		Retene		NAF
4-Chloroaniline	31		Butylbenzylphthalate	110	
Hexachlorobutadiene	50		Benzo(a)anthracene	113	
4-Chloro-3-Methylphenol	100		3,3'-Dichlorobenzidine		NAF
2-Methylnaphthalene	81		Chrysene	97	
1-Methylnaphthalene		NAF	Bis(2-Ethylhexyl) Phthalate	112	
Hexachlorocyclopentadiene	0	REJ	Di-N-Octyl Phthalate	120	
2,4,6-Trichlorophenol	96		Benzo(b)fluoranthene	88	
2,4,5-Trichlorophenol	102		Benzo(k)fluoranthene	104	
2-Chloronaphthalene	89		Benzo(a)pyrene	88	
2-Nitroaniline	95		3B-Coprostanol		NAF
Dimethylphthalate	98		Indeno(1,2,3-cd)pyrene	94	
2,6-Dinitrotoluene	97		Dibenzo(a,h)anthracene	116	
Acenaphthylene	91		Benzo(ghi)perylene	91	
3-Nitroaniline	25				

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Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 (Matrix Spike - LMX1) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** % Recovery

Surrogate Recoveries

2-Fluorophenol	79	%
D5-Phenol	91	%
D4-2-Chlorophenol	78	%
1,2-Dichlorobenzene-D4	32	%
D5-Nitrobenzene	70	%
2-Fluorobiphenyl	81	%
Pyrene-D10	102	%
Terphenyl-D14	110	%

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Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 (Matrix Spike - LMX2) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** % Recovery

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	60		Acenaphthene	91	
Pyridine		NAF	2,4-Dinitrophenol	126	
Aniline	33		4-Nitrophenol	102	
Phenol	98		Dibenzofuran	86	
Bis(2-Chloroethyl)Ether	72		2,4-Dinitrotoluene	90	
2-Chlorophenol	86		Diethylphthalate	84	
1,3-Dichlorobenzene	49		Fluorene	85	
1,4-Dichlorobenzene	54		4-Chlorophenyl-Phenylether	81	
1,2-Dichlorobenzene	58		4-Nitroaniline	39	
Benzyl Alcohol	85		4,6-Dinitro-2-Methylphenol	95	
2-Methylphenol	98		N-Nitrosodiphenylamine	102	
2,2'-Oxybis[1-chloropropane]	76		1,2-Diphenylhydrazine	90	
N-Nitroso-Di-N-Propylamine	83		4-Bromophenyl-Phenylether	97	
4-Methylphenol	84		Hexachlorobenzene	88	
Hexachloroethane	17		Pentachlorophenol	97	
Nitrobenzene	76		Phenanthrene	98	
Isophorone	94		Anthracene	92	
2-Nitrophenol	81		Caffeine		NAF
2,4-Dimethylphenol	95		Carbazole	86	
Bis(2-Chloroethoxy)Methane	84		Di-N-Butylphthalate	97	
Benzoic Acid	103		Fluoranthene	89	
2,4-Dichlorophenol	92		Benzidine		NAF
1,2,4-Trichlorobenzene	72		Pyrene	99	
Naphthalene	80		Retene		NAF
4-Chloroaniline	35		Butylbenzylphthalate	103	
Hexachlorobutadiene	64		Benzo(a)anthracene	103	
4-Chloro-3-Methylphenol	94		3,3'-Dichlorobenzidine		NAF
2-Methylnaphthalene	84		Chrysene	95	
1-Methylnaphthalene		NAF	Bis(2-Ethylhexyl) Phthalate	108	
Hexachlorocyclopentadiene	0	REJ	Di-N-Octyl Phthalate	116	
2,4,6-Trichlorophenol	94		Benzo(b)fluoranthene	90	
2,4,5-Trichlorophenol	97		Benzo(k)fluoranthene	94	
2-Chloronaphthalene	88		Benzo(a)pyrene	87	
2-Nitroaniline	89		3B-Coprostanol		NAF
Dimethylphthalate	92		Indeno(1,2,3-cd)pyrene	91	
2,6-Dinitrotoluene	93		Dibenzo(a,h)anthracene	109	
Acenaphthylene	90		Benzo(ghi)perylene	88	
3-Nitroaniline	33				

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Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 (Matrix Spike - LMX2) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** % Recovery

Surrogate Recoveries

2-Fluorophenol	91	%
D5-Phenol	96	%
D4-2-Chlorophenol	93	%
1,2-Dichlorobenzene-D4	57	%
D5-Nitrobenzene	87	%
2-Fluorobiphenyl	95	%
Pyrene-D10	106	%
Terphenyl-D14	113	%

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OBS0213A1 **Method:** SW8270
QC Type: Laboratory Method Blank **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	23	U	Acenaphthene	11	U
Pyridine	23	U	2,4-Dinitrophenol	226	U
Aniline	11	U	4-Nitrophenol	113	U
Phenol	**30**		Dibenzofuran	11	U
Bis(2-Chloroethyl)Ether	11	U	2,4-Dinitrotoluene	23	U
2-Chlorophenol	11	U	**Diethylphthalate**	**27**	
1,3-Dichlorobenzene	11	U	Fluorene	11	U
1,4-Dichlorobenzene	11	U	4-Chlorophenyl-Phenylether	11	U
1,2-Dichlorobenzene	11	U	4-Nitroaniline	45	UJ
Benzyl Alcohol	11	U	4,6-Dinitro-2-Methylphenol	113	U
2-Methylphenol	11	U	N-Nitrosodiphenylamine	11	U
2,2'-Oxybis[1-chloropropane]	11	U	1,2-Diphenylhydrazine	11	U
N-Nitroso-Di-N-Propylamine	11	U	4-Bromophenyl-Phenylether	11	U
4-Methylphenol	**3.4**	**J**	Hexachlorobenzene	11	U
Hexachloroethane	11	UJ	Pentachlorophenol	113	U
Nitrobenzene	11	U	**Phenanthrene**	**2.2**	**J**
Isophorone	11	U	Anthracene	11	U
2-Nitrophenol	23	U	Caffeine	11	U
2,4-Dimethylphenol	11	U	Carbazole	11	U
Bis(2-Chloroethoxy)Methane	11	U	**Di-N-Butylphthalate**	**27**	
Benzoic Acid	**316**		Fluoranthene	11	U
2,4-Dichlorophenol	11	U	Benzidine	23	U
1,2,4-Trichlorobenzene	11	U	Pyrene	11	U
Naphthalene	11	U	Retene	11	U
4-Chloroaniline	11	U	Butylbenzylphthalate	11	U
Hexachlorobutadiene	11	U	Benzo(a)anthracene	11	U
4-Chloro-3-Methylphenol	11	U	3,3'-Dichlorobenzidine	23	U
2-Methylnaphthalene	11	U	Chrysene	11	U
1-Methylnaphthalene	11	U	**Bis(2-Ethylhexyl) Phthalate**	**35**	
Hexachlorocyclopentadiene		REJ	Di-N-Octyl Phthalate	11	U
2,4,6-Trichlorophenol	11	U	Benzo(b)fluoranthene	11	U
2,4,5-Trichlorophenol	11	U	Benzo(k)fluoranthene	11	U
2-Chloronaphthalene	11	U	Benzo(a)pyrene	11	U
2-Nitroaniline	11	U	3B-Coprostanol	45	U
Dimethylphthalate	11	U	Indeno(1,2,3-cd)pyrene	11	U
2,6-Dinitrotoluene	11	U	Dibenzo(a,h)anthracene	11	U
Acenaphthylene	11	U	Benzo(ghi)perylene	11	U
3-Nitroaniline	23	UJ			

Authorized By: _____ Release Date: 8/31/00

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OBS0213A1 **Method:** SW8270
QC Type: Laboratory Method Blank **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	78	%
D5-Phenol	98	%
D4-2-Chlorophenol	85	%
1,2-Dichlorobenzene-D4	100	%
D5-Nitrobenzene	95	%
2-Fluorobiphenyl	105	%
Pyrene-D10	119	%
Terphenyl-D14	132	%

Manchester Environmental Laboratory

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Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OBS0213A1 **Method:** SW8270
QC Type: Laboratory Method Blank **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Tentatively Identified Compounds

CAS Number	Analyte Description	Result	Qualifier
3102338	*3-Penten-2-one, (E)-*	225	NJ
141797	*3-Penten-2-one, 4-methyl-*	241	NJ
123422	*2-Pentanone, 4-hydroxy-4-methyl-*	21600	NJ
40499830	*3-Pyrrolidinol*	271	NJ
110134	*2,5-Hexanedione*	1980	NJ
110747	*Formic acid, propyl ester*	795	NJ
3240093	*5-Hexen-2-one, 5-methyl-*	1380	NJ
108963	*4(1H)-Pyridinone*	190	NJ
33933823	*2-Decanone, 5,9-dimethyl-*	332	NJ
31295564	*Dodecane, 2,6,11-trimethyl-*	520	NJ
54410898	*5-Decanone, 2-methyl-*	345	NJ
1599673	*1-Docosene*	39	NJ
629969	*1-Eicosanol*	935	NJ

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OBS0213A2 **Method:** SW8270
QC Type: Laboratory Method Blank **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	23	U	Acenaphthene	11	U
Pyridine	23	U	2,4-Dinitrophenol	226	U
Aniline	11	U	4-Nitrophenol	113	U
Phenol	**23**		Dibenzofuran	11	U
Bis(2-Chloroethyl)Ether	11	U	2,4-Dinitrotoluene	23	U
2-Chlorophenol	11	U	**Diethylphthalate**	**24**	
1,3-Dichlorobenzene	11	U	Fluorene	11	U
1,4-Dichlorobenzene	11	U	4-Chlorophenyl-Phenylether	11	U
1,2-Dichlorobenzene	11	U	4-Nitroaniline	45	UJ
Benzyl Alcohol	11	U	4,6-Dinitro-2-Methylphenol	113	U
2-Methylphenol	11	U	N-Nitrosodiphenylamine	11	U
2,2'-Oxybis[1-chloropropane]	11	U	1,2-Diphenylhydrazine	11	U
N-Nitroso-Di-N-Propylamine	11	U	4-Bromophenyl-Phenylether	11	U
4-Methylphenol	**3.9**	**J**	Hexachlorobenzene	11	U
Hexachloroethane	11	UJ	Pentachlorophenol	113	U
Nitrobenzene	11	U	**Phenanthrene**	**2.3**	**J**
Isophorone	11	U	Anthracene	11	U
2-Nitrophenol	23	U	Caffeine	11	U
2,4-Dimethylphenol	11	U	Carbazole	11	U
Bis(2-Chloroethoxy)Methane	11	U	**Di-N-Butylphthalate**	**19**	
Benzoic Acid	**317**		Fluoranthene	11	U
2,4-Dichlorophenol	11	U	Benzidine	23	U
1,2,4-Trichlorobenzene	11	U	Pyrene	11	U
Naphthalene	11	U	Retene	11	U
4-Chloroaniline	11	U	Butylbenzylphthalate	11	U
Hexachlorobutadiene	11	U	Benzo(a)anthracene	11	U
4-Chloro-3-Methylphenol	11	U	3,3'-Dichlorobenzidine	23	U
2-Methylnaphthalene	11	U	Chrysene	11	U
1-Methylnaphthalene	11	U	**Bis(2-Ethylhexyl) Phthalate**	**27**	
Hexachlorocyclopentadiene		REJ	Di-N-Octyl Phthalate	11	U
2,4,6-Trichlorophenol	11	U	Benzo(b)fluoranthene	11	U
2,4,5-Trichlorophenol	11	U	Benzo(k)fluoranthene	11	U
2-Chloronaphthalene	11	U	Benzo(a)pyrene	11	U
2-Nitroaniline	11	U	3B-Coprostanol	45	U
Dimethylphthalate	11	U	Indeno(1,2,3-cd)pyrene	11	U
2,6-Dinitrotoluene	11	U	Dibenzo(a,h)anthracene	11	U
Acenaphthylene	11	U	Benzo(ghi)perylene	11	U
3-Nitroaniline	23	UJ			

Authorized By: _____ Release Date: 8/31/00 Page: 1

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OBS0213A2 **Method:** SW8270
QC Type: Laboratory Method Blank **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	51	%
D5-Phenol	75	%
D4-2-Chlorophenol	59	%
1,2-Dichlorobenzene-D4	83	%
D5-Nitrobenzene	85	%
2-Fluorobiphenyl	96	%
Pyrene-D10	118	%
Terphenyl-D14	129	%

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OBS0213A2 **Method:** SW8270
QC Type: Laboratory Method Blank **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Tentatively Identified Compounds

CAS Number	Analyte Description	Result	Qualifier
78842	*Propanal, 2-methyl-*	276	NJ
123422	*2-Pentanone, 4-hydroxy-4-methyl-*	15600	NJ
16015115	*2H-Pyran, 3,4-dihydro-6-methyl-*	131	NJ
628637	*Acetic acid, pentyl ester*	154	NJ
40499830	*3-Pyrrolidinol*	200	NJ
110134	*2,5-Hexanedione*	741	NJ
541593	*1H-Pyrrole-2,5-dione*	1280	NJ
33933823	*2-Decanone, 5,9-dimethyl-*	124	NJ
2847725	*Decane, 4-methyl-*	225	NJ
16106595	*1-Hexene, 4,5-dimethyl-*	154	NJ
2765119	*Pentadecanal-*	11	NJ
4429770	*Cycloheptadecanol*	15	NJ
629969	*1-Eicosanol*	40	NJ
297245	*Cyclooctacosane*	934	NJ
40710427	*1-Hentetracontanol*	289	NJ

Authorized By: _____ Release Date: 8/31/00

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OCS0213 **Method:** SW8270
QC Type: NIST SRM 1944 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine	1720	U	**Acenaphthene**	**363**	**J**
Pyridine	1720	U	2,4-Dinitrophenol	17200	U
Aniline	863	U	4-Nitrophenol	8630	U
Phenol	**235**	**J**	**Dibenzofuran**	**392**	**J**
Bis(2-Chloroethyl)Ether	863	U	2,4-Dinitrotoluene	1720	U
2-Chlorophenol	863	U	**Diethylphthalate**	**905**	
1,3-Dichlorobenzene	863	U	**Fluorene**	**1210**	
1,4-Dichlorobenzene	863	U	4-Chlorophenyl-Phenylether	863	U
1,2-Dichlorobenzene	863	U	4-Nitroaniline	3450	UJ
Benzyl Alcohol	863	U	4,6-Dinitro-2-Methylphenol	8630	U
2-Methylphenol	863	U	N-Nitrosodiphenylamine	863	U
2,2'-Oxybis[1-chloropropane]	863	U	1,2-Diphenylhydrazine	863	U
N-Nitroso-Di-N-Propylamine	863	U	4-Bromophenyl-Phenylether	863	U
4-Methylphenol	863	U	Hexachlorobenzene	863	U
Hexachloroethane	863	UJ	Pentachlorophenol	8630	U
Nitrobenzene	863	U	**Phenanthrene**	**5020**	
Isophorone	863	U	**Anthracene**	**1440**	
2-Nitrophenol	1720	U	Caffeine	863	U
2,4-Dimethylphenol	863	U	**Carbazole**	**872**	
Bis(2-Chloroethoxy)Methane	863	U	**Di-N-Butylphthalate**	**913**	
Benzoic Acid	**20200**		**Fluoranthene**	**8620**	
2,4-Dichlorophenol	863	U	Benzidine	1720	U
1,2,4-Trichlorobenzene	863	U	**Pyrene**	**9830**	
Naphthalene	**1330**		**Retene**	**1420**	
4-Chloroaniline	863	U	**Butylbenzylphthalate**	**1590**	
Hexachlorobutadiene	863	U	**Benzo(a)anthracene**	**4320**	
4-Chloro-3-Methylphenol	863	U	3,3'-Dichlorobenzidine	1720	U
2-Methylnaphthalene	**622**	**J**	**Chrysene**	**5430**	
1-Methylnaphthalene	**328**	**J**	**Bis(2-Ethylhexyl) Phthalate**	**29800**	
Hexachlorocyclopentadiene		REJ	Di-N-Octyl Phthalate	863	U
2,4,6-Trichlorophenol	863	U	**Benzo(b)fluoranthene**	**4470**	
2,4,5-Trichlorophenol	863	U	**Benzo(k)fluoranthene**	**4530**	
2-Chloronaphthalene	863	U	**Benzo(a)pyrene**	**4040**	
2-Nitroaniline	863	U	3B-Coprostanol	3450	U
Dimethylphthalate	863	U	**Indeno(1,2,3-cd)pyrene**	**3740**	
2,6-Dinitrotoluene	863	U	**Dibenzo(a,h)anthracene**	**2300**	
Acenaphthylene	**905**		**Benzo(ghi)perylene**	**3660**	
3-Nitroaniline	1720	UJ			

Authorized By: _____ Release Date: 8/31/00 Page: 1

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Lab ID: OCS0213 **Method:** SW8270
QC Type: NIST SRM 1944 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 08/08/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	33	%
D5-Phenol	58	%
D4-2-Chlorophenol	47	%
1,2-Dichlorobenzene-D4	72	%
D5-Nitrobenzene	81	%
2-Fluorobiphenyl	90	%
Pyrene-D10	109	%
Terphenyl-D14	119	%

Department of Ecology

Manchester Environmental Laboratory

Project Statement

Project Name: Don Oline Autofluff

LIMS Project ID: 3570-00

Project Officer: McMillan, Russ
Location: SWRO
Program: TCP

Start Date: 07/24/00
Due Date: 08/23/00
Statement Date: 09/01/00

Samples:

Parameter	Matrix	Method	Lab	Qty	Unit Price	Extended Price
BNA	40	SW8270	ECO	3	$ 304	$ 912

QC:

Parameter	Matrix	Method	Lab	Qty	Unit Price	Extended Price
BNA	40	SW8270	ECO	2	$ 304	$ 608

PIC	%	In House	Contract	Generals	Metals	Organics	Bioassay	Special	Total
J1A33	100	$ 1,520	$ 0	$ 0	$ 0	$ 1,520	$ 0	$ 0	$ 1,520
Totals:		**$ 1,520**	**$ 0**	**$ 0**	**$ 0**	**$ 1,520**	**$ 0**	**$ 0**	**$ 1,520**

Attachment 2

MANCHESTER ENVIRONMENTAL LABORATORY
7411 Beach Drive E, Port Orchard Washington 98366

CASE NARRATIVE

December 19, 2000

Subject: Don Oline Autofluff –Quantitation limits for n-nitrosodiphenylamine.

Samples: 00-308001(DIL1) and -308002(DIL1)

Case No. 3570-00

Officer: Russ McMillan

By: Dickey D. Huntamer
Organics Analysis Unit

SEMIVOLATILES ORGANICS
Quantitation Limits for N-nitrosodiphenylamine

COMMENTS:

No significant problems were encountered in the analysis. The purpose of this analysis was to establish a lower quantitation limit for n-nitrosodiphenylamine than previously reported 55 U ug/Kg. This was accomplished by concentrating the sample extracts by a factor of two and reanalyzing. A conservative quantitation limit of 28 U ug/Kg was consequently achieved. Analysis of the low calibration standard, 0.2 ug/ml, indicates that the instrument sensitivity was sufficient to detect half-again the reported quantitation limit of 28 U ug/Kg.

Due to the limitations of LIMS results are reported under the dilution QC code DIL1.

ANALYTICAL METHODS:

Extracts for samples –308001 and –308002, (stored at 4 degrees C) were removed from storage and an aliquot from each was removed, concentrated by a factor of two and analyzed again to obtain a lower quantitation limit for n-nitrosodiphenylamine. The matrix spikes for sample –308002 were also concentrated two fold and analyzed.

HOLDING TIMES:

The sample extracts had been refrigerated and stored in sealed autosampler vials since August 2000.

BLANKS:

Not applicable to this report. See previous analysis.

SURROGATES:

The surrogate compound recoveries were lower than the first analysis by about 20 percent but within acceptable limits. This may be due to some volumetric errors and/or losses during the concentration step.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:

Matrix spike recoveries for n-nitrosodiphenylamine were about 20% lower than those reported in the first analysis similar to the surrogate recoveries. –308002 LMX1 was 82% and –308002 LMX2 was 77% recovery.

DATA QUALIFIER CODES:

U	-	The analyte was not detected at or above the reported value.
J	-	The analyte was positively identified. The associated numerical value is an estimate.
UJ	-	The analyte was not detected at or above the reported estimated result.
REJ	-	The data are unusable for all purposes.
NAF	-	Not analyzed for.
N	-	For organic analytes there is evidence the analyte is present in this sample.
NJ	-	There is evidence that the analyte is present. The associated numerical result is an estimate.
E	-	This qualifier is used when the concentration of the associated value exceeds the known calibration range.
Bold	-	The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet.)

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308001 (Dilution - DIL1) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-14 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 12/13/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine		NAF	Acenaphthene		NAF
Pyridine		NAF	2,4-Dinitrophenol		NAF
Aniline		NAF	4-Nitrophenol		NAF
Phenol		NAF	Dibenzofuran		NAF
Bis(2-Chloroethyl)Ether		NAF	2,4-Dinitrotoluene		NAF
2-Chlorophenol		NAF	Diethylphthalate		NAF
1,3-Dichlorobenzene		NAF	Fluorene		NAF
1,4-Dichlorobenzene		NAF	4-Chlorophenyl-Phenylether		NAF
1,2-Dichlorobenzene		NAF	4-Nitroaniline		NAF
Benzyl Alcohol		NAF	4,6-Dinitro-2-Methylphenol		NAF
2-Methylphenol		NAF	N-Nitrosodiphenylamine	28	U
2,2'-Oxybis[1-chloropropane]		NAF	1,2-Diphenylhydrazine		NAF
N-Nitroso-Di-N-Propylamine		NAF	4-Bromophenyl-Phenylether		NAF
4-Methylphenol		NAF	Hexachlorobenzene		NAF
Hexachloroethane		NAF	Pentachlorophenol		NAF
Nitrobenzene		NAF	Phenanthrene		NAF
Isophorone		NAF	Anthracene		NAF
2-Nitrophenol		NAF	Caffeine		NAF
2,4-Dimethylphenol		NAF	Carbazole		NAF
Bis(2-Chloroethoxy)Methane		NAF	Di-N-Butylphthalate		NAF
Benzoic Acid		NAF	Fluoranthene		NAF
2,4-Dichlorophenol		NAF	Benzidine		NAF
1,2,4-Trichlorobenzene		NAF	Pyrene		NAF
Naphthalene		NAF	Retene		NAF
4-Chloroaniline		NAF	Butylbenzylphthalate		NAF
Hexachlorobutadiene		NAF	Benzo(a)anthracene		NAF
4-Chloro-3-Methylphenol		NAF	3,3'-Dichlorobenzidine		NAF
2-Methylnaphthalene		NAF	Chrysene		NAF
1-Methylnaphthalene		NAF	Bis(2-Ethylhexyl) Phthalate		NAF
Hexachlorocyclopentadiene		NAF	Di-N-Octyl Phthalate		NAF
2,4,6-Trichlorophenol		NAF	Benzo(b)fluoranthene		NAF
2,4,5-Trichlorophenol		NAF	Benzo(k)fluoranthene		NAF
2-Chloronaphthalene		NAF	Benzo(a)pyrene		NAF
2-Nitroaniline		NAF	3B-Coprostanol		NAF
Dimethylphthalate		NAF	Indeno(1,2,3-cd)pyrene		NAF
2,6-Dinitrotoluene		NAF	Dibenzo(a,h)anthracene		NAF
Acenaphthylene		NAF	Benzo(ghi)perylene		NAF
3-Nitroaniline		NAF			

Authorized By: _____ Release Date: 12/19/00

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308001 (Dilution - DIL1) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-14 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 12/13/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	66	%
D5-Phenol	68	%
D4-2-Chlorophenol	62	%
1,2-Dichlorobenzene-D4	36	%
D5-Nitrobenzene	55	%
2-Fluorobiphenyl	58	%
Pyrene-D10	81	%
Terphenyl-D14	81	%

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 (Dilution - DIL1) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 12/13/00 **Units:** ug/Kg dw

Analyte	Result	Qualifier	Analyte	Result	Qualifier
N-Nitrosodimethylamine		NAF	Acenaphthene		NAF
Pyridine		NAF	2,4-Dinitrophenol		NAF
Aniline		NAF	4-Nitrophenol		NAF
Phenol		NAF	Dibenzofuran		NAF
Bis(2-Chloroethyl)Ether		NAF	2,4-Dinitrotoluene		NAF
2-Chlorophenol		NAF	Diethylphthalate		NAF
1,3-Dichlorobenzene		NAF	Fluorene		NAF
1,4-Dichlorobenzene		NAF	4-Chlorophenyl-Phenylether		NAF
1,2-Dichlorobenzene		NAF	4-Nitroaniline		NAF
Benzyl Alcohol		NAF	4,6-Dinitro-2-Methylphenol		NAF
2-Methylphenol		NAF	N-Nitrosodiphenylamine	28	U
2,2'-Oxybis[1-chloropropane]		NAF	1,2-Diphenylhydrazine		NAF
N-Nitroso-Di-N-Propylamine		NAF	4-Bromophenyl-Phenylether		NAF
4-Methylphenol		NAF	Hexachlorobenzene		NAF
Hexachloroethane		NAF	Pentachlorophenol		NAF
Nitrobenzene		NAF	Phenanthrene		NAF
Isophorone		NAF	Anthracene		NAF
2-Nitrophenol		NAF	Caffeine		NAF
2,4-Dimethylphenol		NAF	Carbazole		NAF
Bis(2-Chloroethoxy)Methane		NAF	Di-N-Butylphthalate		NAF
Benzoic Acid		NAF	Fluoranthene		NAF
2,4-Dichlorophenol		NAF	Benzidine		NAF
1,2,4-Trichlorobenzene		NAF	Pyrene		NAF
Naphthalene		NAF	Retene		NAF
4-Chloroaniline		NAF	Butylbenzylphthalate		NAF
Hexachlorobutadiene		NAF	Benzo(a)anthracene		NAF
4-Chloro-3-Methylphenol		NAF	3,3'-Dichlorobenzidine		NAF
2-Methylnaphthalene		NAF	Chrysene		NAF
1-Methylnaphthalene		NAF	Bis(2-Ethylhexyl) Phthalate		NAF
Hexachlorocyclopentadiene		NAF	Di-N-Octyl Phthalate		NAF
2,4,6-Trichlorophenol		NAF	Benzo(b)fluoranthene		NAF
2,4,5-Trichlorophenol		NAF	Benzo(k)fluoranthene		NAF
2-Chloronaphthalene		NAF	Benzo(a)pyrene		NAF
2-Nitroaniline		NAF	3B-Coprostanol		NAF
Dimethylphthalate		NAF	Indeno(1,2,3-cd)pyrene		NAF
2,6-Dinitrotoluene		NAF	Dibenzo(a,h)anthracene		NAF
Acenaphthylene		NAF	Benzo(ghi)perylene		NAF
3-Nitroaniline		NAF			

Authorized By: _____ Release Date: 12/19/00 Page: 8

Manchester Environmental Laboratory

Department of Ecology

Analysis Report for

Base/Neutral/Acids

Project Name: Don Oline Autofluff **LIMS Project ID:** 3570-00

Sample: 00308002 (Dilution - DIL1) **Date Collected:** 07/21/00 **Method:** SW8270
Field ID: SED-15 **Date Prepared:** 07/31/00 **Matrix:** Sediment/Soil
Project Officer: Russ McMillan **Date Analyzed:** 12/13/00 **Units:** ug/Kg dw

Surrogate Recoveries

2-Fluorophenol	67	%
D5-Phenol	75	%
D4-2-Chlorophenol	66	%
1,2-Dichlorobenzene-D4	37	%
D5-Nitrobenzene	62	%
2-Fluorobiphenyl	59	%
Pyrene-D10	79	%
Terphenyl-D14	80	%

Attachment 3

Project Name: Don Oline Autoflutt

PIC: _____ **Program:** TCP/SWRO

Send Results to: Russ McMillan **Mail Stop:** SWRO

Laboratory Analyses Required

Page ___ of ___

☐ Preliminary Investigation ☐ For HW Designation

☐ Monitoring ☐ For NPDES

Date Results needed by: September 2000

☒ There is a QAPP for this project: See Attached QAPP

Sampling							General Chemistry	Micro	Metals	Organic Chemistry
Date Year: 2000 Mo | Da	Time Hr | Mn	Field Station Identification	Lab Sample Number	Matrix Code	Source Code	No. of Containers	Alkalinity; Conductivity; Hardness; pH; Turbidity; ☐ Chloride ☐ Sulfate; Cyanide ☐ Total ☐ Weak; Total Solids; Total Nonvolatile Solids; Total Suspended Solids; Total Nonvol Suspend; Total Dissolved Solids; ☐ %Solids ☐ %Vol. Solids; TOC; BOD (5 day); Oil & Grease; Ammonia; Nitrate-Nitrite; Total Phos. ☐☐ low level; Orthophos. low level; Nitrate; Nitrite; ☐ TKN; ☐ TPN; Chlorophyll ☐ filters	Fecal Coliforms ☐ MF ☐ MPN; Total Coliforms ☐ MF ☐ MPN; E-Coli ☐ MF ☐ MPN; %Klebsiella:	☐ Total ☐ Total Rec. ☐ Dissolved; ICP Scan; ICP/MS scan; PP Metals; TCLP Metals; Mercury (Hg); GFAA list individually	BNA ☐ w/extensive TIC's; PAH's; VOA ☐ w/extensive TIC's; BTEX; Waste/PCB's; PCB's only; OP- Pests; Herbicides; WTPH-HCID; WTPH-G; WTPH-D; WTPH-418.1 Modified; HCID Only
07 21	15 14	OLINEAUTO	SS-36	40	42	3				X
			SED-14	40	42	1				X
			SED-15	40	42	1				X

Project Officer: Russ McMillan

Phone number: 407-6254

Samplers: R. McMillan, Ronald Oline

Recorder: R. McMillan

Date: 7/21/2000

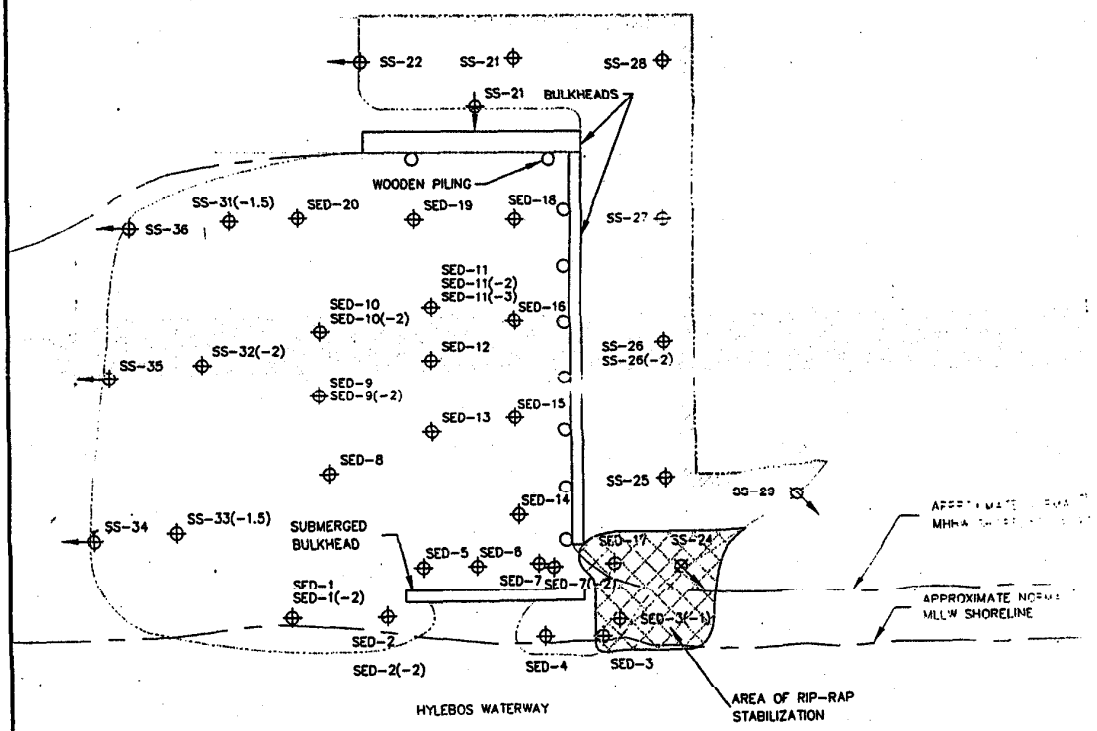
Chain of Custody Record

Relinquished By:	Received By:	Yr	Mo	Da	Hr	Mn	Seal I.D.	Condition of Seals	Comments
Russ McMillan		00	07	21	18	04	0008938	Sealed	

Comments: 1 Cooler with Samples SS-36, SED-14, SED 15 Sealed in the field @ 15:15 hrs 7/21/2000

Attached QAPP specifies analytes for ea. Sample, Det. Limits & QA/QC Reqm'ts.

Attachment 4



20 10 0 20

SCALE: 1" = 20'

(a) PRIOR TO ANY SITE EXCAVATION/REMEDIATION

LEGEND

SED-1	SEDIMENT-BOTTOM SAMPLE
SS-26(-2)	SEDIMENT-BOTTOM SAMPLE WITH DEPTH BELOW ASR-SEDIMENT CONTACT
SS-32	SEDIMENT-EDGE OF EXCAVATION SAMPLE
	LIMIT OF INTERTIDAL REMEDIAL EXCAVATION
	APPROXIMATE MHHW & MLLW SHORELINE (AS LABELED)

ENVIRONMENTAL PARTNERS INC
10940 NE 33rd PLACE, STE. 110
BELLEVUE, WASHINGTON 98004
TEL. 425-889-4747
FAX 425-889-4755

FIGURE 2
LIMIT OF INTERTIDAL REMEDIAL EXCAVATION AND PERFORMANCE SAMPLING LOCATIONS

PROJECT	18801.0 DON OLINE AUTOFLUFF SITE
PREPARED FOR	HYLEBOS MARINA
LOCATION	2120 MARINE VIEW DRIVE TACOMA, WASHINGTON

SHEET	DRAWN BY	REVIEWED BY	DATE DRAWN
1 of 1	LKL	TCM	11/17/97

#	M/D/Y	EXPLANATION
REV.	DATE	DESCRIPTION

7/21/00 Confirmation Sampling @ Oline Autofluff Site

Arrive 1320 hrs. met Ron Oline

Tide well out from all stations to be sampled

STN SED-14 1:37 PM

Removed Overburden of Fish-Mix Gravels after locating original stake - (Stake was 65' & 10' from two bulkheads) Stn excavated waterward of stake

1' overburden removed

Sample taken from 12" to 16" below existing surface, about 2" below clay (native)/gravel interface

Sample Clayey silts, gray brown in color with fair amount of wood chips in matrix

Quite dry & elastic

Observed Nereid Worm 5-6" & Hemigrapsus

No No treadable odor

STN SED-15 - 1:56 PM

Moved Stn Landward to get off of Concr. Slab

Sample taken b/w 42' & 43' from Bulkhead

Depth of Fish Mix 17"

Sample recovered from 19" to 23"

Mat'l gray brown silty clay with large bark & wood debris mixed into it

slight H_2S smell

STN-SS-36 Approx 6" Fish Mix blending into gray mix of Cobbles/Gravel/Sand Silts - Stn Excavated at 64' from Wall 15' from Bulkhd

Excavated to least disturbed material at 19" bgs Sample acquired from 17" to max depth @ 19"

Samples were sealed in field w/ Ice in cooler Seal # 0008938

In presence of Ron Oline @ 15:15 hrs

Delivered to Ecology Chain of Custody @ 18:04 7/21/2000

Attachment 5